

REMARKS/ARGUMENTS

Claims 1, 3-7, 10-22, 24-28, 30-43 and 46-50 are pending in the application. Applicants believe that the present application is in condition for allowance, and respectfully requests reconsideration of the rejection in light of the remarks set forth below.

Claim Rejections – 35 USC § 112

Claims 27-31 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More particularly, the Office Action asserted that claim 27 is indefinite because claim 27 recites “a receiver for determining a first data bit of said QPCH” in line 3, and there is no correlation between this limitation and the rest of the claims limitations. Applicants respectfully traverse.

Claim 27 recites “a receiver for determining a first data bit of said QPCH, wherein said receiver includes a plurality of receiver chains for receive diversity” and “a control system for selecting a number of said plurality of receiver chains for receive diversity based on a channel condition of a pilot channel received at said receiver.” (emphasis added). Thus, the “receiver” and “control system” recited in claim 27 are related in that the “control system” selects a number of the plurality of receiver chains of the “receiver” for receive diversity. Because claim 27 clearly sets forth the relationship between the “receiver” and the “control system” recited in claim 27, Applicants submit that claim 27 is definite under 35 U.S.C. § 112, second paragraph.

Therefore, Applicants respectfully request that the § 112 rejection of claim 27, and its dependent claims 28-31, be withdrawn.

Claim Rejections – 35 USC § 102 and 103

Claims 1, 7, 42, 43 and 50 were rejected under 35 U.S.C. § 102(b) as being anticipated by Rich (U.S. 5,940,452) (hereinafter “Rich”). Claims 27 and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Rich in view of Willey (U.S. 6,505,058) (hereinafter “Willey”). Reconsideration and withdrawal of these rejections are respectfully requested.

Claim 1 is directed to an apparatus for use in a communication system. The apparatus comprises a receiver, including a plurality of receiver chains adapted for processing in the receiver, for receiving a pilot channel and determining a channel condition of the pilot channel.

The apparatus further comprises a control system for controlling receive diversity and power consumption of the receiver by selecting a number of the plurality of receiver chains based on the determined channel condition, wherein the control system is configured for reducing the number of selected receiver chains when the determined channel condition is above a first channel condition threshold.

Applicants submit that Rich does not teach or suggest at least the feature of a control system for controlling receive diversity and power consumption of the receiver by selecting a number of a plurality of receiver chains based on the determined channel condition, as recited in claim 1.

Rich discloses a radio system 100 comprising a first antenna 114, a second antenna 116, a single receiver 126 common to both antennas 114 and 116 and a controller 108. See Figure 1 of Rich. The radio system 100 operates in one of the three selected states, in which the first antenna 114, the second antenna 116 or both antennas are coupled to the single receiver 126. See col. 11, lines 10-17. Thus, the radio system 100 in Figure 1 of Rich selectively changes the number of antennas 114 and 116 coupled to a single receiver 126, and does not selectively change a number of receiver chains for controlling receive diversity. Even assuming that the receiver 126 of Rich represents a receiver chain, Rich does not disclose more than a single receiver chain in this embodiment. For at least the reasons given above, Rich is not seen to teach or suggest at least the feature of a control system for controlling receive diversity and power consumption of the receiver by selecting a number of a plurality of receiver chains based on the determined channel condition, as recited in claim 1.

In the Office Action dated August 9, 2009, the Examiner appeared to rely on the first antenna 114 and the second antenna 116 of Rich as disclosing a plurality of receiver chains and the controller 108 of Rich selecting only the first antenna 114 based on a determined factor 604 as disclosing a control system for controlling receive diversity and power consumption of the receiver by selecting a number of a plurality of receiver chains based on the determined channel condition. See page 3 of the Office Action. Applicants respectfully disagree. To begin, Applicants submit that one skilled in the art would not consider the antennas 114 and 116 alone to be a plurality of receiver chains since the antennas 114 and 116 merely receive signals and do not process the received signals. Consequently, the controller 108 of Rich does not control receiver diversity and power consumption by selecting a number of a plurality of receiver chains.

As discussed above, the controller 108 of Rich selectively changes the number of antennas 114 and 116 coupled to a single receiver 126, and does not selectively change a number of receiver chains for controlling receive diversity.

Because Rich does not teach or suggest a controller that controls receiver diversity and power consumption by selecting a number of a plurality of receiver chains, Rich also does not teach or suggest wherein the control system is configured for reducing the number of selected receiver chains when the determined channel condition is above a first channel condition threshold, as recited in claim 1.

For at least the reasons given above. Applicants submit that claim 1 is patentable over the applied references, and respectfully request that the rejection of claim 1 be withdrawn.

Independent claims 7, 42, 43 and 50, which include features similar to those of claim 1, are also patentable for at least the reasons given above for claim 1.

Claim 27 is directed to an apparatus for decoding a quick paging channel (QPCH) in a mobile station in a communication system. The apparatus comprises a receiver for determining a first data bit of said QPCH, wherein said receiver includes a plurality of receiver chains for receive diversity, and a control system for selecting a number of said plurality of receiver chains for receive diversity based on a channel condition of a pilot channel received at said receiver, wherein power consumption of said receiver is controlled based on said receive diversity.

Applicants submit that neither Rich nor Willey teach or suggest at least the feature of a control system for selecting a number of a plurality of receiver chains for receive diversity based on a channel condition of a pilot channel received at a receiver, wherein power consumption of said receiver is controlled based on the receive diversity, as recited in claim 27.

Rich does not teach or suggest this feature of claim 27 for at least the same reasons given above for claim 1.

Willey discloses a method for determining whether to wake up a mobile station, in which a base station transmits a QPCH paging indicator bit to the mobile station indicating whether the mobile station is to wake up to receive a page. See col. 5, lines 48-50 of Willey. However, Willey does not teach or suggest a control system for selecting a number of a plurality of receiver chains for receive diversity based on a channel condition of a pilot channel received at a receiver, wherein power consumption of the receiver is controlled based on the receive diversity, and therefore fails to cure the same deficiencies in Rich.

For at least the reasons given above, Applicants submit that claim 27 is patentable over the applied references, and respectfully request that the rejection of claim 27 be withdrawn.

Claim 28 depends from claim 27, and is therefore also patentable for at least the reasons given above for claim 27.

Allowable Subject Matter

Applicants thank the Examiner's indication that claims 14-22, 24-26 and 32-41 are allowed.

Applicants thank the Examiner's indication that claims 3-6, 10-13 and 46-49 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicants maintain that independent claims 1, 7 and 43 from which claims 3-6, 10-13 and 46-49 depend, respectively, are allowable in their own right. Accordingly, no amendment is necessary at this time.

Applicants thank the Examiner's indication that claims 30 and 31 would be allowable if claim 27 is rewritten to overcome the 35 U.S.C. § 112, second paragraph, and claims 30 and 31 are rewritten to include all of the limitations of the base claim and any intervening claims. However, Applicants maintain that independent claim 27 from which claims 30 and 31 depend is allowable in its own right. Accordingly, no amendment is necessary at this time.

CONCLUSION

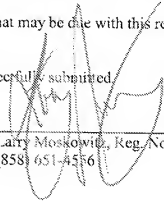
In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested. Should any of the above rejections be maintained, Applicants respectfully request that the noted limitations be identified in the cited references with sufficient specificity to allow Applicants to evaluate the merits of such rejections. In particular, rather than generally citing whole sections or columns, Applicants request that the each claimed element be specifically identified in the prior art to permit evaluating the references.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

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Respectfully submitted,

By:


Larry Moskowitz, Reg. No. 42,911
(858) 651-4556

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, California 92121-1714
Telephone: (858) 658-5787
Facsimile: (858) 658-2502